

## Conditional optimization and one inverse boundary value problem

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### Abstract

© 2015 Pyotr N. Ivanshin. Here we construct different approximate solutions of the plane inverse boundary value problem of aerohydrodynamics. In order to do this we solve some conditional optimization problems in the norms  $\|\cdot\|_2$ ,  $\|\cdot\|_\infty$ , and  $\|\cdot\|_1$  and some of their generalizations. We present the example clarifying the mathematical constructions and show that the supremum norm generalization seems to be the optimal one of all the functionals considered in the paper.

<http://dx.doi.org/10.1155/2015/949703>

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